Submitted via VWsettle@tceq.texas.gov

October 1, 2018

John Niermann, Commissioner
Texas Commission on Environmental Quality, Air Quality Division
12100 Park 35 Circle
Austin, Texas 78753

Subject: XL's Comments on Texas's Beneficiary Mitigation Plan

Dear Commissioner Niermann,

XL, Inc. ("XL") is pleased to submit the following comments and recommendations, which Texas can use to protect and improve the state's air quality. We look forward to participating in the current round of funding and have designed the following strategic vision to support future funding programs that will cost-effectively fund shovel-ready, large-scale deployments of alternative fuel and low emissions vehicles. Such projects will provide immediate and sustained reductions of smog-forming nitrogen oxides (NOx) in communities disproportionately affected by diesel pollution.

XL currently leads the U.S. market in fleet electrification solutions and our products stem from a core goal:

*Create a **reliable and widely applicable technology** that*
***delivers unparalleled value** and reduces the overall cost of ownership*

Our efforts to realize that goal have led to demonstrated experience reducing diesel use and offsetting emissions. Our customers – such as PepsiCo, Verizon, Harvard University, and ThyssenKrupp, to name a few – have aggregated nearly 65 million miles and continue driving 1.5 million miles each month. In recent years, Coca-Cola has installed an XL hybrid-electric vehicle system on every van deployed nationwide.

We have saved our customers approximately 1.47 million gallons of fuel, reduced 13,000 tons of carbon dioxide (CO_2), and saved over 11,700 hours of driver productivity. Further, we have developed and nurtured long-term relationships with industry-leading experts, including Ford Motor Company, General Motors, Argonne National Laboratory, and CALSTART, to design, test, construct, and deploy our electrified powertrains and vehicles.

We strongly support the Texas Commission on Environmental Quality's explicit inclusion of hybrid technology in the state's plan. XL's hybrid-electric vehicle and plug-in hybrid-electric vehicle technologies offer fleets the most cost-effective, high-quality solutions for service, delivery, school bus, and transit vehicles. Our hybrid-electric vehicle technology can be installed on Ford, GM, and Isuzu models (with more OEMs to follow) and is available on both new vehicles and repowers. We pride ourselves on cost-effective service – installation takes approximately 4-6 hours and immediately yields a 20% savings on fuel and greenhouse gases.

XL's recently released light-duty plug-in hybrid-electric vehicle technology will dramatically increase fuel savings while lowering the total cost of ownership, all the while retaining the emissions reduction benefits of other vehicle technology solutions at higher price points. This product introduction represents XL's efforts to expand our portfolio to better serve our customers and provide the lowest total cost of ownership across a variety of vehicle platforms.

Recommendation 1: Facilitate Cost-Effective, Immediate, and Sustained Emissions Reductions via Hybrid-Electric Technology

Vitally important to the health of its citizens, Texas must ensure the Volkswagen funds are used to finance projects that bring about immediate and sustained NOx emissions reductions that are the result of diesel transportation sources. Interstate I-35, I-20, and I-10 crisscross the state and serve as a key transportation corridor connecting several metropolitan centers.

Hybrid-electric vehicles are a smart investment for Texas because they can yield tremendous benefits. Indeed, in comparison with other eligible project types under the Volkswagen settlement, XL's technology demonstrates significant cost-effectiveness benefits in terms of NOx reduction emissions, as shown in Figure 1 below.

Figure 1: XL's hybrid-electric vehicle technologies achieve the best $ per NOx ton cost-effectiveness

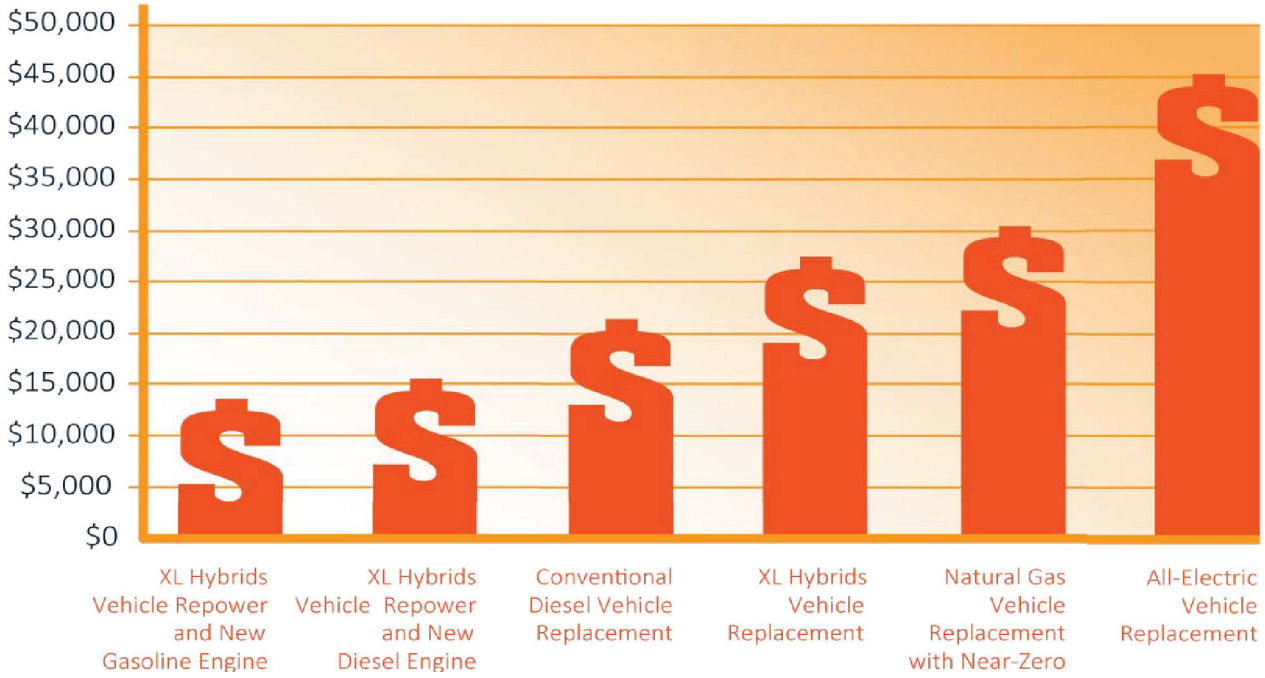
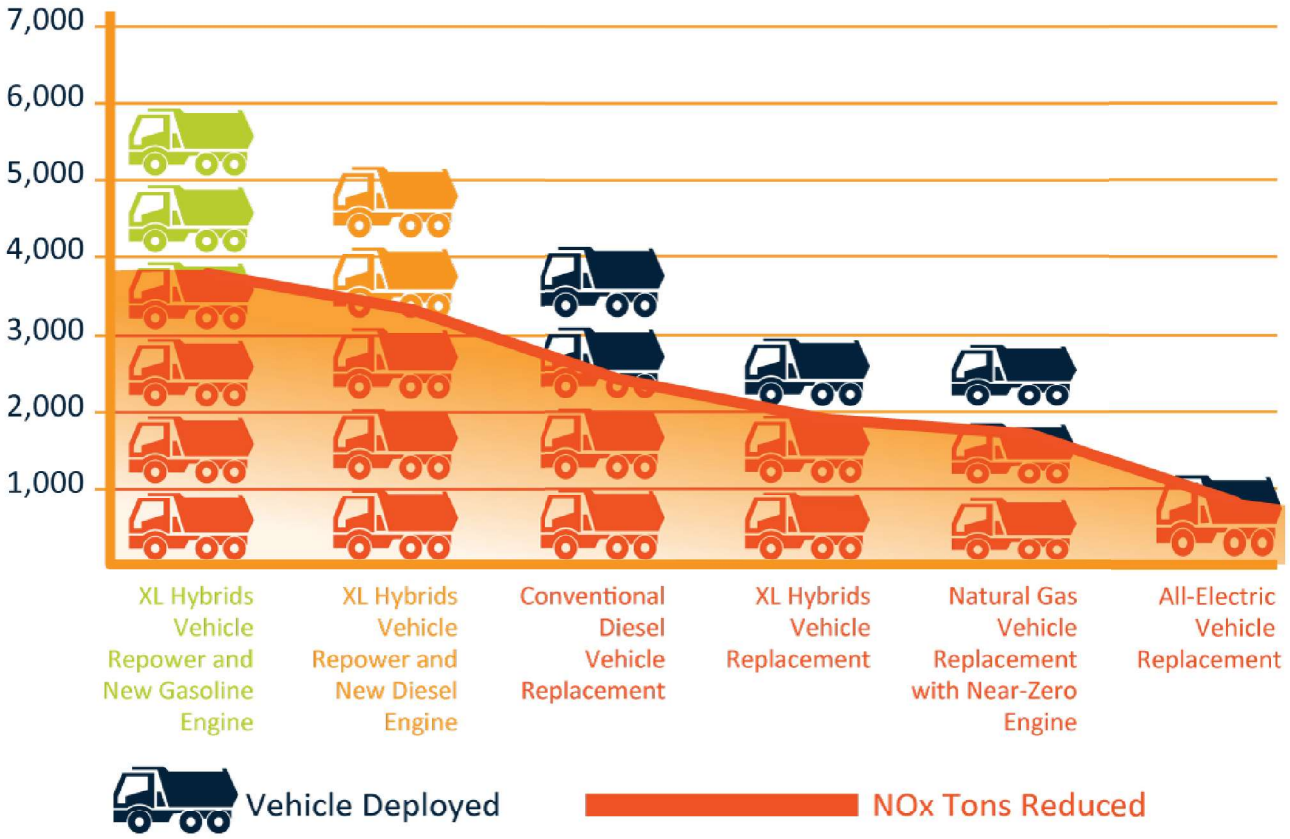


Figure 1 clearly shows that XL's hybrid-electric vehicle technology provides cost-effective competition to conventional diesel replacements, while far outpacing the cost-effectiveness of most advanced natural gas and all-electric vehicles.

We find it worth noting that allowing funds to be used for new gasoline-fueled vehicles equipped with hybrid technologies will result in far superior cost-effectiveness and emission reduction benefits. By replacing an existing diesel vehicle with a gasoline-hybrid vehicle, Texas can dramatically lower the incremental cost and thereby increase the cost-effectiveness of the replacement, more effectively "right size" the horsepower and torque suitable to the application and reduce emissions across the spectrum of pollutants. We appreciate that there is not yet any published guidance that has defined whether such projects would be eligible. In that light, we hope to engage further with Texas to demonstrate the benefits of these gasoline-hybrid vehicles and ensure their eligibility for competition.

By extrapolating these cost-effectiveness numbers, the results are even more staggering. Figure 2 below shows six hypothetical scenarios in which Texas dedicated $50 million to each. The graphic makes clear the large-scale deployment and emissions reduction potential of various XL hybrid-electric vehicle replacement and repower solutions.

Figure 2: A $50 million investment in hybrid-electric vehicle projects would deliver the largest number of vehicle deployments and the most NOx tons reduced



We commend Texas in structuring its current request for proposal (RFP) using Volkswagen funds so as to allow each applicant to propose competitive cost-share levels lower than those prescribed in the Volkswagen settlement. By doing so, Texas can more realistically fund large-scale, transformative projects that will be capable of achieving the greatest amount of emissions reductions per state dollar.

Recommendation 2: Prioritize NOx Cost-Effectiveness, but also Give Credence to Other Cost-Effectiveness Metrics

While NOx cost-effectiveness is certainly important, we also recommend that Texas expand the definition of cost-effectiveness to address other attributes. We have highlighted several of these attributes below, which have proven to be critical issues for our customers and are thus vital to ensuring that projects can be replicated across the state, region, and nation.

Table 1: XL delivers a wide array of cost-effectiveness benefits

Cost-Effectiveness Attribute	XL Hybrid-Electric Vehicle System Installation and Repower	Vehicle Replacement
Deployment Window	1 day to upfit the vehicle	6 to 12 months for new OEM vehicle
Cost for Medium-Duty Vehicle	$40,000 for diesel and $35,000 for gasoline, which includes installation of the hybrid system and new engine	$50,000 - $100,000
Wells to Wheels NOx Savings on City Drive Cycle	As much as 99%, due to regenerative braking and engine improvements	Variable, depending on technology and grid electricity source
Infrastructure	None	None, though other alternative fuels require cost-intensive dedicated stations
Availability	Available nationwide with MA public fleet contract VEH102	Variable; Other alternative fuels may not be available in all markets and vehicle classes

The benefits of alternative fuel technologies, particularly for municipal fleets, cannot be overstated. While not only delivering emission reduction benefits, these fleets also face increasingly stringent compliance requirements for deploying such vehicles. Fortunately, the Alternative Fuel Provider Fleet Program of the Energy Policy Act (EPAct) was recently expanded so as to allow hybrid-electric vehicles to qualify as one-half credit. This effectively provides municipal fleets (which also include state, utility, and university fleets) with additional options to meet their procurement standards and reduce emissions. XL is proud of its coordination with and support from the Department of Energy on this effort.

Recommendation 3: Mitigate Diesel Emission Sources that have the Highest Potential to Generate Air Quality and Health Benefits

On-road transportation projects have the most potential to mitigate the harmful health impacts of these emissions as these vehicles typically operate in communities with dense populations. We certainly appreciate that Texas has other sources of diesel emissions (e.g., school buses, non-road, and rail equipment), but these are not likely to contribute substantial NOx emissions in the state's priority areas. Rather, these are more commonly found in lightly populated areas or do not consume sufficient volumes of fuel and thus do not product substantial emissions. In other words, only on-road transportation projects can yield the air quality and environmental justice benefits required by the Volkswagen settlement and desired by Texas.

We thus encourage Texas to dedicate at least 60% of the Volkswagen settlement funds to on-road transportation projects. This will help the state establish the framework needed to achieve the following key goals:

(1) Improve air quality via significant and sustained cost-effective NOx reductions
(2) Expedite deployment and adoption of the cleanest vehicle technologies
(3) Align with statewide energy, environmental and economic development goals and account for environmental justice considerations

Recommendation 4: Prioritize Projects that Accrue High Percentage of Mileage within Overburdened Counties

XL fully supports Texas's prioritization of funding for projects in counties with a disproportionate burden of the state's ozone levels. Transportation hubs, such as airports, terminals, and depots are concentrated sources of diesel emissions and, as such, every effort should be made to prioritize projects that address these specific geographies. Further, these areas are most often found in more densely populated areas – for Texas, these population and transportation centers include the Dallas-Fort Worth and Houston-Galveston-Brazoria regions, which include 18 counties in nonattainment for NOx emissions.

However, to ensure that funding for air quality projects is most effectively directed to the areas that most need them, we recommend that Texas limit eligibility to vehicles that operate a high percentage of mileage within the priority counties. By setting a minimum threshold requirement (e.g., "75% of mileage must be accrued with Texas's nonattainment counties"), this recommendation directly addresses the state's need to fund projects in communities that bear a disproportionate share of diesel pollution.

Because Texas has established environmental justice as a core responsibility and as it is one of the foundational elements of the Volkswagen settlement, combining Texas's county prioritization and our recommendation to require settlement-funded vehicles to operate primarily within these counties can ensure that funds are directed most efficiently and cost-effectively. Alternative-fuel vehicles, such as hybrid-electric vehicles, can significantly reduce vulnerable population's exposure to emissions that are associated with older diesel trucks.

Recommendation 5: Promote Proactivity and Accountability by Funding with an Eye to the Future

Hybrid-electric vehicles continue to integrate transformational transportation technology. As an example, each of our vehicles is equipped with the cloud-based XL Link™ Connected Vehicle System ("XL Link"). Our fleet customers currently use XL Link for fleet management and analytics, though we note the potential importance of this technology as it pertains to the settlement's stringent reporting, compliance, and accountability requirements.

XL Link reports fuel consumption, mileage, idling time, speed, and vehicle performance – in fact, you can see these statistics tracked in real time on our website. XL Link will help considerably in our efforts to support Texas's grant reporting requirements and is a standard feature in all new vehicle offerings. In addition, we install XL Link on existing vehicles to help our customers generate actionable intelligence on powertrain performance and drive cycle utilization.

XL notes the hybrid technology can also be integrated with alternative fuel vehicles, thereby expanding the potential market and creating opportunity for additional emissions reduction and increased cost-effectiveness. As the technology is ultimately separate from the engine, XL has identified no barriers to hybridizing alternative gaseous fuel vehicles, such as those powered by CNG and propane. This type of fuel flexibility is technologically possible and XL estimates that new original equipment manufacturer (OEM) products of this type could be delivered to the market in as few as nine months.

Summary

XL appreciates the opportunity to support Texas in meeting its NOx emission reductions, social and environmental justice, and economic and energy stimulus goals. Our recommendations will cost-effectively yield energy and economic benefits for the state, including tax revenue generation, improved vehicle efficiency and decreased maintenance, and the redirection of cost savings into the state's economy. Moreover, they promote the widespread use of low emitting vehicles that will transform Texas's transportation network, increase efficiencies, and play a vital role in the state's efforts to mitigate GHG and NOx emissions.

We would like to work with you and your team to ensure the effective rollout of your Beneficiary Mitigation Plan. Towards that end, we request an in-person meeting with the most appropriate member of your staff to discuss our comments and suggestions further. We look forward to continued dialogue with you and to future collaboration that will help Texas meet its air quality, cost-effectiveness, and environmental justice goals.

Sincerely,

Clay Siegert
Chief Operating Officer
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